DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
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SECNAVINST 5000.36A
DON CIO
19 Dec 2005

SECNAV INSTRUCTION 5000.36A

From: Secretary of the Navy

Subj: DEPARTMENT OF THE NAVY INFORMATION TECHNOLOGY APPLICATIONS AND DATA MANAGEMENT

Ref: (a) Title 40, United States Code, Subtitle III, Section 11101 et seq (Recodification of Clinger-Cohen Act)
(b) Title 10, United States Code, Section 2223
(c) OMB Circular No. A-130, Management of Federal Information Resources, of 28 Nov 00
(d) DOD Directive 8000.1, Management of DOD Information Resources and Information Technology, of 27 Feb 02
(e) DOD Directive 8100.1, Global Information Grid Overarching Policy, of 19 Sep 02
(f) DOD Directive 4630.5, Interoperability and Supportability of Information Technology and National Security Systems, of 5 May 04
(g) DOD Instruction 4630.8, Procedures for Interoperability and Supportability of Information Technology and National Security Systems, of 30 Jun 04
(h) DOD Directive 8320.2, Data Sharing in a Net-Centric DOD, of 2 Dec 04
(i) SECNAVINST 5000.2C, Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System, of 19 Nov 04
(j) DOD Directive 8115.01, Information Technology Portfolio Management, of 10 Oct 05
(k) Under Secretary of the Navy memo, Reducing the Number of DON Legacy Applications, of 16 Mar 05
(l) UNSECNAV memo, Designation of DON Functional Area Managers, of 14 May 02
(m) DON CIO memo, Designation of DON Application and Database Management System as an Authoritative Data Source, of 18 Oct 02
(n) DON CIO memo, DON Policy on the use of Extensible Markup Language, of 13 Dec 02
(o) SECNAV Instruction 5430.7 of 9 Jun 05

Encl: (1) Definitions
(2) Acronyms
(3) Functional Areas and Functional Area Managers

1. Purpose

a. Establish the overarching policy for Department of the Navy (DON) applications and data management.

b. Describe the roles and responsibilities of the DON Functional Area Managers (FAM), Functional Data Managers (FDM), and Functional Namespace Coordinators (FNC).

c. Establish roles and responsibilities for the development, execution, and maintenance of DON Information Technology (IT) processes and tools to transform applications and data into net-centric naval capabilities consistent with DOD policy for interoperability and data sharing.

d. Describe the relationships between the Department of the Navy Chief Information Officer (DON CIO), the Assistant Secretaries of the Navy, the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps (CMC) for DON applications and data management.

e. Implement references (a) through (o) as they apply to DON applications and databases.

2. Cancellation. SECNAVINST 5000.36 upon promulgation and effective date of this instruction. This instruction contains significant revisions and should be reviewed in its entirety.

3. Scope and Applicability

a. This instruction addresses DON IT applications and data management policy as it applies to networked and standalone IT applications, data, and data exchanges within and across all DON organizations.

b. The policy contained in this instruction applies to all DON organizations that control, operate, or manage IT systems (including National Security Systems (NSS)) regardless of security classification and Acquisition Category (ACAT) or Non-ACAT designation.

c. Definitions. See enclosure (1)

d. Acronyms. See enclosure (2)

4. Background

a. The delineation of functional areas by SECNAVINST 5000.36, and the designation of FAM roles and responsibilities in reference (l), defined the Department's approach to management of functional Information Management (IM)/IT portfolios. FAM organizations established and implemented common DON processes and web-based collaborative tools that facilitated the development, rationalization, and management of the DON IT applications portfolio. FAM organizations developed basic operational activity taxonomies that document and integrate Global Information Grid (GIG) Mission Area information processes. In addition, the FAM organizations have highlighted opportunities for process efficiencies and operational improvements.

b. This policy integrates best practices, processes, and lessons learned from ongoing Navy and Marine Corps data management and data standardization initiatives.

5. Policy. It is DON policy to:

a. Enable effective and efficient DON information resource management through establishment, use, and maintenance of shared processes and tools for management of IT applications and data in accordance with references (a), (c), (d), (m) and (o).

b. Use DON Applications and Database Management System (DADMS) as the DON Authoritative Data Source (ADS) for IT applications and database portfolio management in accordance with reference (m).

c. Register DON IT systems, applications, and databases, with associated metadata, server hardware, and network information, in DADMS to support functional area portfolio management, allocation of funding, implementation of ADSs, integration of DON portals, and network and server consolidation in accordance with reference (m).

d. Develop and manage IT applications and database portfolios to ensure that technology strategies are aligned with DON and GIG Mission Area strategies in accordance with reference

(j).

e. Eliminate duplicate, obsolete, and FAM-disapproved applications and databases in accordance with references (k) and (l).

f. Provide management visibility into system, application, data, and network life-cycle costs in accordance with references (i) through (k).

g. Reduce system life-cycle costs through the use of FAM-approved IT applications and FDM-designated ADSs, and the elimination of unregistered and disapproved IT applications and databases in accordance with references (j) and (k).

h. Implement a net-centric, DON applications and data architecture (Figure 1) using Service-Oriented Architecture (SOA) to enable access to the right information, at the right time, in the right format in accordance with reference (b) and references (f) through (h).

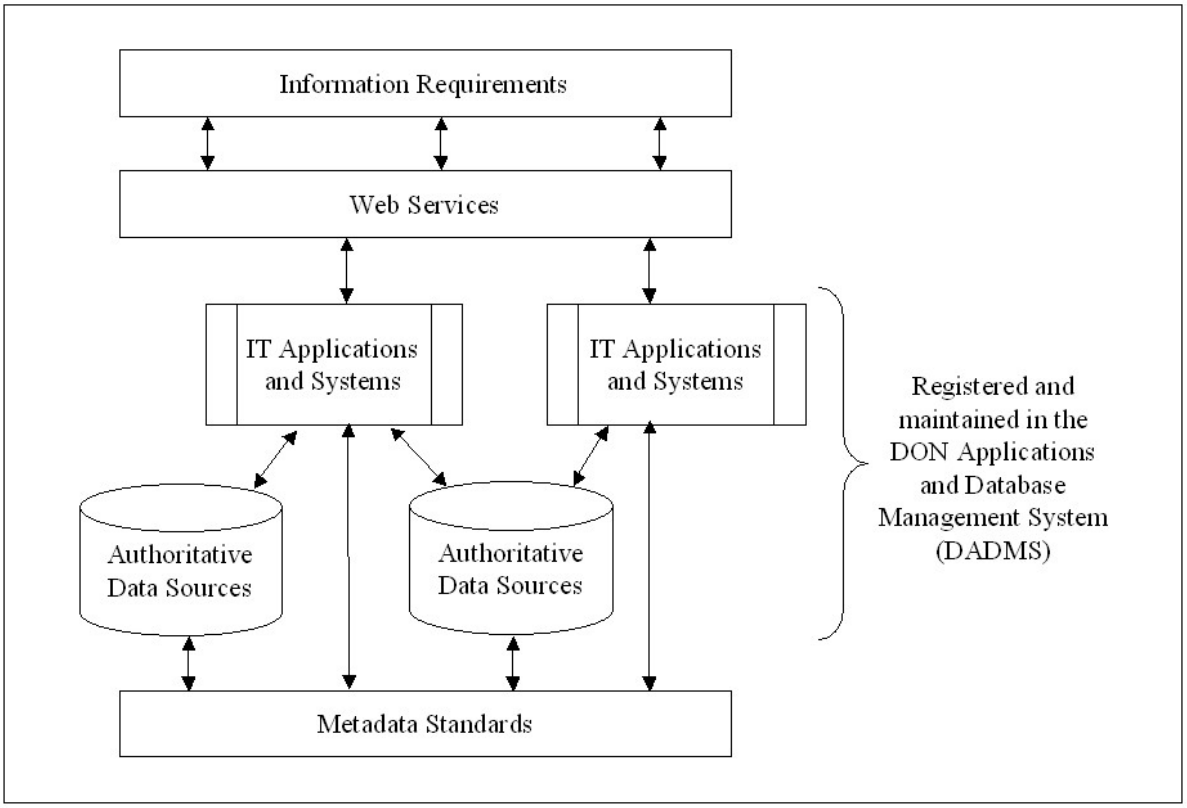

Figure 1: DON IT Applications and Data Architecture Components

i. Protect information and data that is business sensitive, proprietary, privacy-related, and/or legally privileged in accordance with reference (c).

j. Identify and use ADSs to minimize duplication or ambiguity, and to increase data integrity in accordance with reference (h).

k. Align DON initiatives to ensure a net-centric data environment and to facilitate alignment with GIG Core Enterprise Services in accordance with reference (h).

l. Harmonize the development and implementation of interoperable Extensible Markup Language (XML) and web services solutions to facilitate net-centric data sharing in accordance with reference (h).

m. Comply with all DOD and Federal regulations and policies calling for the registration of IT systems.

6. Responsibilities. The pervasive nature of DON IT applications and data management requires the collective and proactive involvement of Senior Leaders, Functional Area Managers/Resource Sponsors, Acquisition Managers, and Echelon II/Major Commanders. Responsibilities are as follows:

a. The DON CIO shall:

(1) Establish DON IT applications and data management policy, planning, guidance, and metrics, consistent with the DON Enterprise Architecture, for ensuring the interoperability of IT (including NSS) throughout the DON in accordance with references (d) through (g) and (o).

(2) Coordinate with cognizant Secretariat, Navy, and Marine Corps Senior Officials to direct the elimination of duplicate IM/IT capabilities within DON organizations in accordance with references (a) through (e), (j) and (o). This does not preclude redundant capabilities planned for continuity of operations and management efficiencies.

(3) Coordinate the development of DON IT applications and data management processes and tools and ensure their integration and implementation in accordance with references (k) through (m).

(4) In advance of submission to DOD, review Secretariat, Navy, and Marine Corps IT and NSS programming priorities and all IT applications and data management budget submissions for compliance with DON policy and guidance, and for compliance with DOD and Federal standards in accordance with references (b) through (d), (j) and (k).

(5) Develop and maintain a DON net-centric data strategy to ensure requisite processes, products, tools, and metrics are in place to resolve systems data interoperability and cross-functional issues, including the designation and management of ADSs, and the development of integrated Service-level and DON data architectures in accordance with references (f) through (h).

(6) Prescribe IT and NSS data exchange and information standards that will apply throughout the DON in accordance with references (b), (d), (n), and (o).

(7) Consult with voluntary consensus standards bodies, and coordinate DON participation in such bodies in the development of voluntary consensus standards to ensure that DON IT applications and databases are interoperable with other relevant information technology systems in accordance with references (b), (d), (n), and (o).

(8) Prepare DON IT investment priorities to guide CNO and CMC during the Program Objective Memorandum (POM) and Program Review cycles in accordance with references (j) and (k).

b. The Assistant Secretary of the Navy (Financial Management and Comptroller) (ASN(FM&C)) shall designate the ADS for managing DON IT financial data.

c. The Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN(RD&A)) shall:

(1) Enforce implementation of DON IT application and data management policies, standards, and metrics by all acquisition programs.

(2) Ensure that Program Managers notify the applicable FAM prior to the initiation of investments in or development of new IT systems, applications, and/or databases.

d. The Assistant for Administration to the Under Secretary of the Navy (AAUSN), Chief of Naval Operations (CNO), and Commandant of the Marine Corps (CMC) shall:

(1) In coordination with the DON CIO, issue guidance and direction for the establishment of processes and tools that achieve the goals set forth in this policy.

(2) Ensure applicable FAM, FDM, and FNC organizational and resourcing requirements submitted through the Planning, Programming, Budgeting, and Execution (PPBE) process are funded.

e. DON Deputy CIOs for the Navy and Marine Corps shall:

(1) Support the DON CIO in accomplishing DON applications and data management goals and objectives.

(2) Support the DON CIO to ensure standardized, DON IM/IT policies, processes, and tools are implemented and used.

(3) Ensure that DON IT applications and databases are registered and maintained in DADMS.

(4) Identify applications and data management current (execution) year, budget year, and out-year funding requirements and priorities for submission to the responsible major claimant and the applicable resource sponsor(s) for appropriate funding consideration.

f. Navy and Marine Corps Resource Sponsors shall:

(1) Serve as FAMs as designated in enclosure (3).

(2) Support their respective FAM, FDM, and FNC organizations by submitting requirements through the PPBE process, and providing funding for FAM, FDM, and FNC organizations to use in performing their IT systems, applications, and data portfolio management responsibilities.

(3) Exercise investment control over DON systems to ensure compliance with IT systems, applications, and data management goals and interoperability requirements.

(4) Ensure that IT systems, applications, and data portfolio management resource requirements are addressed during PPBE.

(5) Ensure POM submittals adhere to DOD and DON strategies and policies and reflect interoperability priorities.

g. Functional Area Manager (FAM) organizations shall:

(1) Develop and manage the IM/IT system portfolio, application portfolio, and database portfolio to ensure that technology strategies are aligned with DON and GIG Mission Area strategies.

(2) Oversee the management, reduction, and consolidation of IT systems, applications, and databases and direct their migration, consolidation, and/or retirement, consistent with applicable acquisition laws and regulations.

(3) For multi-agency, joint IT systems, applications, and databases, coordinate management and disposition actions with the appropriate Office of the Secretary of Defense (OSD) Mission Area and Domain Owners.

(4) Support the DON CIO and the DON Deputy CIOs for the Navy and the Marine Corps, to ensure standardized, DON IM/IT processes are implemented and used.

(5) Provide strategic guidance and oversight for FDM and FNC initiatives.

(6) Provide concurrence to DON Commands and Activities prior to the initiation of investments in or development of new IT systems, applications, and/or databases.

h. Functional Data Manager (FDM) organizations shall:

(1) Support FAM organizations in defining requirements for and optimizing availability of required data while eliminating unnecessarily redundant data in their functional area.

(2) Coordinate and implement standardized, DON functional processes to monitor the use of data within and across functional activities, information systems, and computing and communications infrastructures.

(3) Coordinate and implement standardized DON guidance and processes for the registration of databases and data exchange formats.

(4) Prepare and maintain appropriate functional area data architectures representing the aggregate of functional area data requirements linked to standards, interfaces, and ADSs.

(5) Designate ADSs for their respective functional areas and maintain that designation using processes and procedures approved by the DON CIO and the DON Deputy CIOs for Navy and Marine Corps.

(6) Identify and manage resources required to execute FDM and FNC roles and responsibilities.

i. Functional Namespace Coordinator (FNC) organizations shall:

(1) Assist Program Managers and other systems developers with production of XML and web services components.

(2) Manage functional namespaces and harmonize XML and web services components with other functional areas via the DON XML Business Standards Council (BSC).

(3) Coordinate approval, implementation, and the use of standardized data components through the DON XML BSC.

(4) Perform additional data management responsibilities as defined under DON XML policy, reference (n).

(5) Serve as members of the DON XML BSC and provide support for:

(a) Managing and coordinating standardized reusable XML and web services components across the DON.

(b) Coordinating and registering DON XML and web services components with appropriate DOD and Federal registries.

(c) Participating in voluntary consensus standards bodies in the development of voluntary consensus standards to ensure that DON IT applications and databases are interoperable with other relevant information technology systems.

7. Action. This instruction is effective immediately.

D. M. Wennergren
Department of the Navy
Chief Information Officer

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DEFINITIONS

Application. A software program designed to perform a specific function directly for the user or, in some cases, for another application.

Authoritative Data Source. (1) A source of data or information that is recognized to be valid or trusted because it is considered to be highly reliable of accurate or is from an official publication or reference (Department of Defense Directive (DODD) 8320.2); and (2) Databases that have been identified, described, and designated in DADMS by appropriate DON FDMs as the authorized source of data for a given requirement.

Data. A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means. (Federal Information Processing Standard (FIPS) Pub 11-3 and DODD 8320.2)

Data Management. Data Management is a sub-set of Information Management (IM). It deals with the creation, use, sharing, and disposition of data as a resource critical to the effective and efficient operation of functional activities. It is the structuring of functional processes to produce and monitor the use of data within functional activities, information systems, and computing and communications infrastructures. (DODD 8000.1 modified)

Database. A collection of interrelated data, often with controlled redundancy, organized according to a schema to serve one or more applications; the data are stored so that different programs can use them without concern for the data structure or organization. A common approach is used to add new data and to modify and retrieve existing data. (FIPS Special Pub 11-3 - cancelled). Databases registered in DADMS must also comply with specific and measurable criteria to be considered for designation as an authoritative data source.

Domain Owner. DOD's designated leader responsible for overseeing business transformation for their functional area of the Military Departments and other DOD Components. (Under Secretary of Defense, Comptroller (USD(C))

Echelon II Command. Those Navy commands that serve as the single responsible office, advocate, and point of contact for installations; provide consistent, effective and efficient services and support to sustain and improve current and future Navy readiness and mission execution; execute delivery of services throughout the Navy; and coordinate the PPBE and reporting these services.

Extensible Markup Language (XML). A general-purpose markup language capable of describing many different kinds of data. The primary purpose is to facilitate the sharing of data across different systems, particularly systems connected via the World Wide Web. (World Wide Web Consortium (W3C))

FORCEnet. FORCEnet is the architecture of warriors, weapons, sensors, networks, decision aids, and supporting systems integrated into an highly adaptive, human-centric, comprehensive maritime system that operates from seabed to space, from sea to land. By exploiting existing and emerging technologies, FORCEnet enables dispersed, human, decision-makers to leverage military capabilities to achieve dominance across the entire mission landscape with joint, allied, and coalition partners. FORCEnet is the future implementation of Network Centric Warfare in the Naval Services. (Naval Transformation Roadmap)

Functional Area. A Functional Area encompasses the scope (the boundaries) of a set of related functions and data for which an Office of the Secretary of Defense (OSD) Principal Staff Assistant or the Chairman of the Joint Chiefs of Staff has DOD-wide responsibility, authority, and accountability. A Functional Area (e.g., personnel) is composed of one or more functional activities (e.g., recruiting), each of which consists of one or more functional processes (e.g., interviews). Also known as a business area.

Functional Area Data Architecture (FADA). The FADA represents the integration and harmonization of all data-dependent applications, rendered as external schema, within each functional area, and links to legacy data instantiations, interfaces, standards, and ADSs. The FADA is a conceptual model/schema as described under the American National Standards Institute/Scalable Processor Architecture (ANSI/SPARC) 4-Schema Architecture.

Functional Area Manager (FAM). Organizations responsible for development and management of system, application, and database portfolios used to support the processes within that functional area.

Functional Data Manager (FDM). Organizations designated by the respective FAM to produce and control structuring of data and metadata within functional activities, information systems, and computing and communications infrastructures.

Functional Namespace Coordinator (FNC). Organizations designated by the respective FAM to perform data management responsibilities as defined under DON XML policy, to include assisting program managers and other systems developers with production and use of XML schemas and web services, metadata registration, and managing and coordinating standardized reusable XML and web services components across the DON. (Reference (n))

Information. Information means any communication or representation of knowledge such as facts, data, or opinions in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual forms. (Office of Management & Budget (OMB) Circular No. A-130 and DODD 8000.1))

Information Management (IM). Information Management means the planning, budgeting, manipulating, and controlling of information throughout its life cycle. (OMB Circular No. A-130 and DODD 8000.1)

Information Technology (IT). Any equipment, or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. The term “equipment” in this definition means equipment used by a Component directly, or used by a contractor under a contract with the Component, which requires the use of such equipment, or requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. The term “IT” includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources. The term “IT” includes National Security System. (Title 40, United States Code, Subtitle III, Section 11101 et seq (Recodification of Clinger-Cohen Act))

Interoperability. The ability of systems, units or forces to provide services to, and accept services from, other systems, units or forces, and to use the services so exchanged to enable them to operate effectively together. (Chairman of the Joint Chiefs of Staff (CJCS) Pub 1-02 and DODD 8100.1)

ISO. Not an acronym; ISO is the common short name for the International Organization for Standardization. Because "International Organization for Standardization" would have different abbreviations in different languages ("IOS" in English, "OIN" in French for Organisation internationale de normalisation), it was decided at the outset to use a word derived from the Greek isos, meaning "equal". Therefore, whatever the country, whatever the language, the short form of the organization's name is always ISO. (Source: International Organization of Standardization)

Metadata. Information describing the characteristics of data; data or information about data; or descriptive information about an entity's data, data activities, systems, and holdings. (DODD 8320.2)

National Security System. Any telecommunications or information system operated by the United States Government, the function, operation, or use of which: (a) involves intelligence activities; (b) involves cryptologic activities related to national security; (c) involves command and control (C2) of military forces; (d) involves equipment that is an integral part of a weapon or weapons system; or (e) subject to limitation below, is critical to the direct fulfillment of military or intelligence missions. Limitation — Item (e) does not include a system that is to be used for routine administrative and business applications (including payroll, finance, logistics, and personnel management applications). (Title 40, United States Code, Subtitle III, Section 11101 et seq (Recodification of Clinger-Cohen Act))

Net-Centric. Relating to or representing the attributes of net-centricity. Net-centricity is a robust, globally interconnected network environment (including infrastructure, systems, processes, and people) in which data is shared timely and seamlessly among users, applications, and platforms. Net-centricity enables substantially improved military situational awareness and significantly shortened decision making cycles. (DODD 8320.2)

Program Manager. The Program Manager is the organization responsible for the acquisition, development, and execution of a solution to a validated operational requirement.

Resource Sponsor. The Resource Sponsor is the organization responsible for planning the operational requirements and establishing funding to support those requirements.

Service-Oriented Architecture (SOA). The term service-oriented architecture expresses a software architectural concept that defines the use of XML and web services to support the requirements of net-centric data sharing. In an SOA environment, nodes on a network make resources available to other participants in the network as independent services that the participants access in a standardized way. SOA represents a collection of best practices principles and patterns related to service-aware, enterprise-level, distributed computing. Standardization efforts for SOA focus on workflows, translation coordination, orchestration, collaboration, loose coupling, business process modeling, and other concepts that support agile computing. (Organization for the Advancement of Structured Information Standards)

System. A set of information resources organized for the collection, storage, processing, maintenance, use, sharing, dissemination, disposition, display, or transmission of information. (DODD 8500.1)

Web Services. A standardized way of integrating web-based applications using open standards over an Internet Protocol backbone. Web services allow applications developed in various programming languages and running on various platforms to exchange data without intimate knowledge of each application's underlying IT systems. (DODD 8320.2)

ACRONYMS

AAUSN. Assistant for Administration to the Under Secretary of the Navy

ACAT. Acquisition Category

ADS. Authoritative Data Source

ANSI/SPARC. American National Standards Institute/Standards Planning and Requirements Committee

ASN(FM&C). Assistant Secretary of the Navy (Financial Management and Comptroller)

ASN(RD&A). Assistant Secretary of the Navy (Research, Development and Acquisition)

ASN(M&RA). Assistant Secretary of the Navy (Manpower and Reserve Affairs)

BSC. Business Standards Council

C2. Command and Control

CIO. Chief Information Officer; also Command Information Officer

CJCS. Chairman of the Joint Chiefs of Staff

CMC. Commandant of the Marine Corps

CNO. Chief of Naval Operations

CNR. Commander, Naval Research

DADMS. DON Applications and Database Management System

DOD. Department of Defense

DODD. Department of Defense Directive

DON. Department of the Navy

FADA. Function Area Data Architecture

FAM. Functional Area Manager

FDM. Functional Data Manager

FIPS. Federal Information Processing Standards

FNC. Functional Namespace Coordinator

GIG. Global Information Grid

GC. General Counsel

HQMC. Headquarters, U.S. Marine Corps

IM. Information Management

ISO. International Organization for Standardization

IT. Information Technology; includes NSS

JAG. Judge Advocate General

MCOTEA. Marine Corps Operational Test and Evaluation Agency

NSS. National Security System

OPNAV. Office of the Chief of Naval Operations

OSD. Office of the Secretary of Defense

POM. Program Objective Memorandum

PPBE. Planning, Programming, Budgeting, and Execution

SECNAV. Secretary of the Navy

SECNAVINST. Secretary of the Navy Instruction

SOA. Service-Oriented Architecture

TECOM. Training and Education Command

USD(C). Under Secretary of Defense, Comptroller

W3C. World Wide Web Consortium

XML. Extensible Markup Language

FUNCTIONAL AREAS AND FUNCTIONAL AREA MANAGERS

DON Functional Area	Functional Area Manager	Navy Point of Contact	Marine Corps Point of Contact
Acquisition	ASN(RD&A)	OPNAV N8	MCSC
Civilian Personnel	ASN(M&RA)	OPNAV N1/NT	DC, M&RA
Financial Management	ASN(FM&C)	OPNAV N8	DC, P&R
Legal	GC/JAG	OPNAV N1/NT	HQMC, JA

Navy Functional Area	Functional Area Manager	Marine Corps Point of Contact
Medical	OPNAV N093	MC Medical Officer
Meteorology, Oceanography, and Geospatial Information and Services	OPNAV N6/N7	DC, AVN
Naval Nuclear Propulsion	OPNAV N00N	N/A
Precise Time and Astronomy	OPNAV N6/N7	N/A

Navy/USMC Functional Area	Navy Functional Area Manager	Marine Corps Functional Area Manager	Notes
Command and Control	OPNAV N6/N7	DC, CD (CDD)	For Navy, the C2 functional area includes tactical communications.
Enterprise Services	OPNAV N098	HQMC, C4	Combines: Administration, Enterprise Services, and Communications (except Navy tactical communications)
Information Operations	OPNAV N6/N7	DC, PP&O	
Intelligence	OPNAV N2	HQMC I	
Logistics	OPNAV N4	DC, I&L	
Modeling and Simulation	OPNAV N6/N7	DC, CD (TECOM)	
Personnel Management	OPNAV N1/NT	DC, M&RA	Combines: Manpower and Personnel, Religious Ministries, and Reserve Affairs
Readiness	OPNAV N4	DC, PP&O	
Resources, Requirements & Assessment	OPNAV N8	DC, P&R	
Scientific and Technical	OPNAV N091/CNR	DC, CD (MCWL)	
Test and Evaluation	OPNAV N4	MCOTEA	
Training and Education	OPNAV N1/NT	DC, CD (TECOM)	
Weapons Planning and Control	OPNAV N6/N7	DC, CD (CDD)	